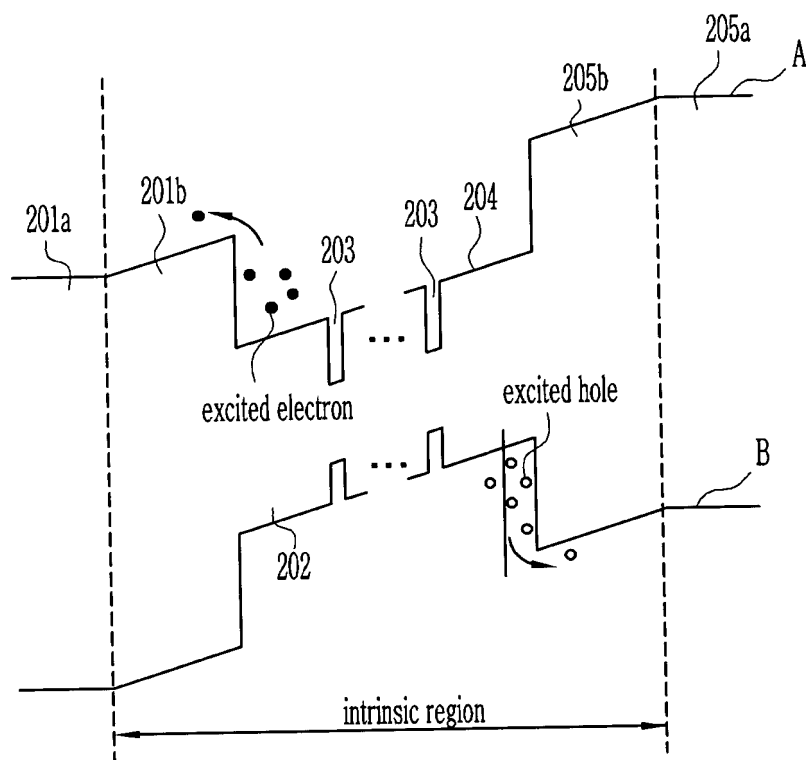




FIG. 3



The diagram illustrates the energy bands of a semiconductor device. The vertical axis represents energy, and the horizontal axis represents position. Two vertical dashed lines define the boundaries of the device. The top curve, labeled 301a, represents the conduction band, and the bottom curve, labeled 302, represents the valence band. The region between them is labeled 'intrinsic region'. A quantum well structure is formed by a series of steps in the bands. The first step in the conduction band is labeled 301b, and the first step in the valence band is labeled 302. The energy levels within the well are labeled 303. An 'excited electron' is shown as a dot in the 303 level, and an 'excited hole' is shown as a circle in the 303 level. The energy levels 304a and 304b are shown as steps in the bands. The energy levels 305 and 306 are shown as horizontal lines at the top and bottom of the device, respectively. The labels A and B are placed at the right end of the conduction and valence bands, respectively.

FIG. 5A

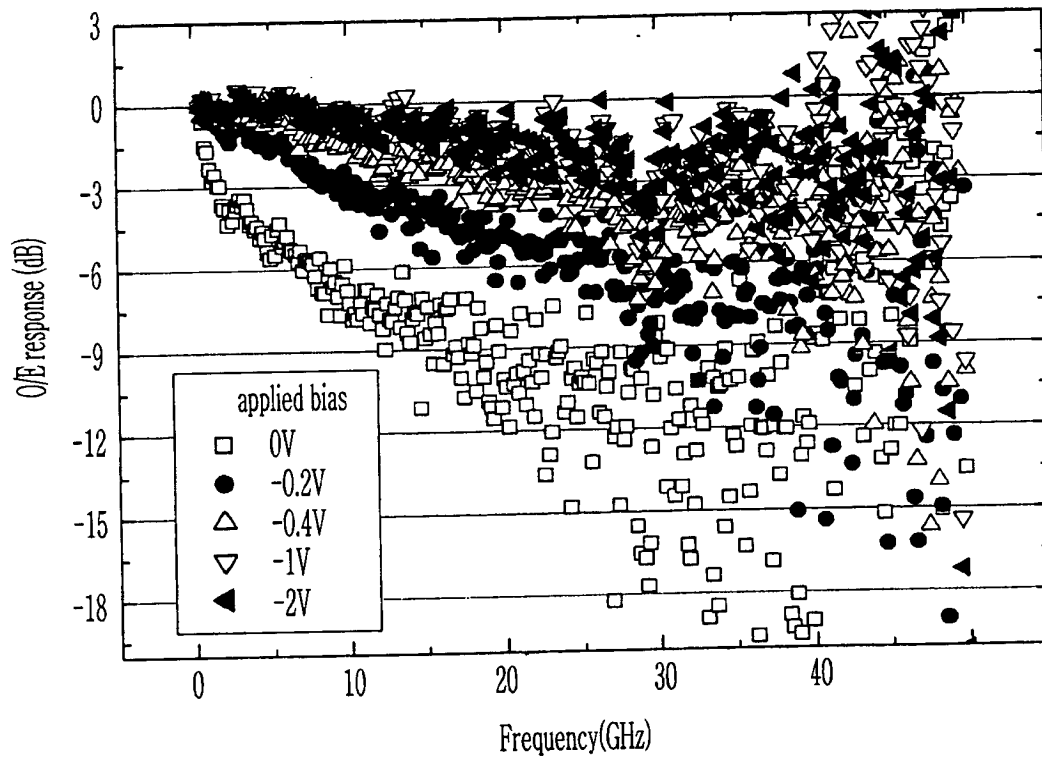


FIG. 5B

